

Amendments to the Claims:

Please cancel Claims 1–19 and 29–37, and amend Claims 20, 23 and 27 as indicated by the following listing of claims, which replaces all prior versions and listings of claims in the application.

Listing of Claims:

- 1–19. (Canceled)
20. (Currently Amended) A method for cooling material, the method comprising:
 - positioning an end of a cryoprobe in the material;
 - circulating a cryogenic ~~liquid~~ fluid through the cryoprobe under physical conditions near a critical point of a liquid-vapor system for the cryogenic ~~liquid~~ fluid, wherein the critical point defines a point in a phase diagram of the liquid-vapor system where molar volumes are substantially equivalent for liquid and gas,whereby vapor lock associated with cooling of the cryoprobe is avoided.
21. (Original) The method recited in claim 20 wherein the cryoprobe has a diameter less than 2 mm.
22. (Original) The method recited in claim 20 wherein the cryoprobe has a diameter less than 1 mm.
23. (Currently Amended) The method recited in claim 20 wherein the cryogenic ~~liquid~~ fluid is liquid nitrogen and the physical conditions comprise a pressure of about 33.5 atm.
24. (Original) The method recited in claim 20 wherein the material comprises an imaging array.

25. (Original) The method recited in claim 20 wherein the material comprises electronic circuits in a device.

26. (Original) The method recited in claim 20 further comprising:
positioning an end of a second cryoprobe in the material, the ends of the cryoprobes being made of an electrically insulating material; and
electrically ablating the material by forcing current between the ends of the cryoprobes to heat intervening material.

27. (Currently Amended) The method recited in claim 26 wherein electrically ablating the material is performed after circulating the cryogenic ~~liquid~~ fluid through the cryoprobe for initial ice formation.

28. (Original) The method recited in claim 20 further comprising injection a cryosensitizing substance into the material with the cryoprobe.

29-37. (Canceled)